## **ABSTRACT**

A sulfate process for producing titania from a titaniferous material is disclosed. The process includes leaching the titaniferous material and producing a leach liquor, precipitating iron sulfate from the leach liquor, solvent extraction of titanyl sulfate from leach liquor, hydrolysis of the extracted titanyl sulfate, and thereafter calcining the solid phase produced in the hydrolysis step. The process is characterised by using at least part of the raffinate from the solvent extraction step as at least part of the leach solution in the initial leach step.